# synapse

Specificatio	Specification Data		
Job Name			
Туре			
Catalog #			
Comments			

# PRODUCT OVERVIEW

The DIM10-087-06-IP embedded wireless controller opens an exciting integration path for LED Luminaires. The smaller size and lower cost make this DCpowered wireless controller versatile enough to be embedded in nearly any wattage LED Luminaire.

Pairing the DIM10-087-06-IP with a SimplySnap Site Controller makes it easy to comply with ASHRAE 90.1, Title 24, DLC NLC Indoor/Outdoor, and other energy requirements today and in the future.

# **KEY FEATURES:**

- Seamless SimplySnap Integration
- Simplified DC Design mates with LED Drivers
- Secure AES128 Encryption
- DLC Certification for both Indoor and Outdoor
- Self-healing 2.4GHz SNAP Mesh Networking
- Secure, over-the-air software upgrades
- 2 Sensor Inputs: DC Motion and 0-10V Photocells
- IP66 rated for indoor and outdoor applications

#### IEC 62386 DALI-2 Certified – D4i

- DALI-2 Certified DATA Bus Part 101
- D4i Power Monitoring Part 252
- D4i Type D Single-Master Controller Part 351
- DALI-2 Linear Dimming, ON/OFF Part 218
- Compatible with WattStopper DALI-2 FDP-301
  Motion and Photocell
- RGBA Color Support
- Requires DALI Power Supply on D4i Driver
- Requires D4i Aux Power Supply

#### **DIM to OFF LED Drivers**

- 0-10V Dimming, ON/OFF
- No Power Monitoring
- Powered via LED Driver Aux Power

Note- LED Driver must support DIM to OFF functionality



# DIM10-087-06-IP

D4i OR 0-10V DIM TO OFF WIRELESS LIGHTING CONTROLLER



Powered by SimplySnap

#### **Future D4i Enhancements**

- Luminaire Run Time Part 253
- Luminaire Model Data Part 251 Memory Bank 1
- LED Driver Model Data Part 102 Memory Bank 0
- Surge Detection Part 253
- Over Temperature Counters Part 253
- Over Current Counters Part 253
- Diagnostics and Alerts Part 253

#### SPECIFICATIONS

	3.7" × 2.8" × 0.9"		
Dimensions	See Mechanical Datasheet for		
	Engineering dimensions		
Input Power	12-24 VDC +/- 10% , 900mW max		
Temperature	-40°C to +80°C	-40°C to +80°C	
IP Rating	IP66		
Wire Size	18AWG, 7" Wires, 600V		
Dimming	0-10V, 10mA Souce/Sink (Max) or D4i Dimming		
D4i LED Drivers <sup>1</sup>	Limited to 4 D4i LED Drivers		
Sensor Input Specifications	Analog: 0-10V Digital: 0-24V	Software selectable	
Radio	SNAP 2.4GHz ; 802.15.4 +20 dBm Transmit Power -103 dBm Receive Sensitivity		
Certifications	c(UL)us; FCC/IC; CE; UKCA; DLC- Indoor/Outdoor; DALI-2 - D4i Certification		
Warranty <sup>2</sup>	5 Years		

 Maximum of 4 LED Drivers per controller, consult Synapse Support if a greater ratio is needed.

2. See www.synapsewireless.com/warranty for warranty terms.

# WIRING DIAGRAM EXAMPLES

Product #	Description	
DIM10-087-06-IP	Board in IP66 Case with Wires, internal antenna	



DIM10-087-06-IP WIRING DIM TO OFF WITH AUX SUPPLY



Note: Deployment is for inside fixtures only. Do NOT use in a fixture-to-fixture design.

0-10V LED Driver

#### Status LED- when powered

### Signal/Wire Colors

Meaning	Signal	Wire Color	
No Network Found (Communication Lost)	DALI-/COMMON	PINK/WHITE STRIPE	
Network Found, Controller Not	DALI+	VIOLET/WHITE STRIPE	
Configured (Device not yet added to SimplySnap)	DIM+	VIOLET	
Network Found, Controller Configured	SENSOR INPUT B	ORANGE	
(Normal Operation)	SENSOR INPUT A	YELLOW	
	POWER	BROWN	

Note: Cap Unused Wires with a Wire Nut!

## SimplySnap Site Controller options- required for all deployments

Part #	Description	Application
SS450-002	SimplySnap, WiFi, Verizon LTE, Industrial Metal Enclosure	Indoor
CBSSW-450-002	Central Base Station SS450-based Model with 5-button switch and NEMA 4X enclosure	Indoor/Outdoor

Patented - Virtual marking at https://www.synapsewireless.com/about/patents

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Color

RED

**BLINKING** 

GREEN

GREEN